

Association for Information Systems AIS Electronic Library (AISeL)

CONF-IRM 2010 Proceedings

International Conference on Information Resources
Management (CONF-IRM)

5-2010

32. Governance of IT-Shared Services: Moving Between Hierarchical and Networked Service Provision

Gerald G. Grant

Carleton University, Gerald_Grant@carleton.ca

Frank Ulbrich

Stockholm School of Economics, frank.ulbrich@ufv.ca

Follow this and additional works at: <http://aisel.aisnet.org/confirm2010>

Recommended Citation

Grant, Gerald G. and Ulbrich, Frank, "32. Governance of IT-Shared Services: Moving Between Hierarchical and Networked Service Provision" (2010). *CONF-IRM 2010 Proceedings*. 32.
<http://aisel.aisnet.org/confirm2010/32>

This material is brought to you by the International Conference on Information Resources Management (CONF-IRM) at AIS Electronic Library (AISeL). It has been accepted for inclusion in CONF-IRM 2010 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

32. Governance of IT-Shared Services: Moving Between Hierarchical and Networked Service Provision

Gerald G. Grant
Carleton University
gerald_grant@carleton.ca

Frank Ulbrich
Stockholm School of Economics
frank.ulbrich@hhs.se

Abstract

This research-in-progress paper provides a preliminary explanation of an organization's transitional journey as it moves from a hierarchical model of IT service provision towards a network one. What is important to understand is how the organization can safeguard that the value-producing qualities of IT service provision are maintained and enhanced throughout this transition. Using a single case-study approach we discuss and analyze these aspects. We find that the transition has an impact on managing IT service provision, that the speed of the transition is shaped by endogenous and exogenous friction, and that the organization can move both forward and backwards in its journey. We propose a tentative model to explain the transition from a hierarchical model of IT service provision towards a network one. The proposed model constitutes a starting point for our further research into how organizations manage this transition and what factors support or impede this move.

Keywords

Canada, E-government, Governance, IT governance, IT-shared services, Shared services

1. Introduction

Public and private-sector organizations are increasingly convinced that IT investments should focus on the services that IT can provide in support of strategic business goals (Pearlson & Saunders 2009; Ragowsky, Licker & Gefen 2008). This focus contrasts with the prior one on accumulating physical IT assets and personnel as a prelude to providing IT services to the organization (Gordon 2001). By adopting a service-provision focus for IT investments executives in organizations challenge both the rationale and priority of owning IT assets and providing IT services through traditional IT hierarchies. Instead, more emphasis is given to sourcing IT services in markets (through traditional third-party outsourcing) or through network arrangements, often manifested in IT shared services.

Moving away from the traditional style of providing IT through hierarchies to network arrangements raises significant issues for managing this transition. When working in hierarchical relationships, managing or governing IT is often circumscribed by internal structures, processes, relationships, and environmental exigencies surrounding the organization. However, as IT service provision moves to market or network modes of service delivery, governing IT becomes more intricate. For example, when BP Exploration decided to outsource its IT operations the hope was that it would free managers to focus on strategic

business and IT issues (Cross, Earl & Sampler 1997). However, managing the relationships with vendors can prove to be problematic and more difficult than originally envisaged (Kern 1997). This means, therefore, that organizations need to now focus more on how to manage IT service provision in relation to external service providers (Cullen, Seddon and Willcocks 2005).

An even more challenging set of circumstances arises when IT services are delivered using network arrangements such as through IT shared services centers (IT-SSCs). IT-SSCs are network arrangements where partners come together to provide IT services for mutual benefit (Schulz et al. 2009). No one party dominates the other. In this type of network arrangement, governance of IT is normally more nuanced and relationship-based. Rather than depending on contracts, more emphasis is placed on mutually agreed upon standards and protocols for decision-making about IT.

Current research on IT service provision in hierarchies and external markets is prevalent (Cullen, Seddon & Willcocks 2005, Hirschheim & Lacity 2000, Willcocks, Hindle, Feeny & Lacity 2004). However, research on IT service provision through IT-SSCs is still developing. Theoretical models of IT governance do not sufficiently incorporate the shift in focus and IT provision style so as to provide better guidance on managing shared IT service provision. The move to shared services arrangements, particularly in public sector organizations, therefore, poses significant governance challenges that needs to be recognized and understood (Grant, McKnight, Uruthirapathy & Brown 2007).

To better understand how IT shared services effectively can be governed in organizations a number of important questions need to be answered. For example, how do organizations shift from traditional hierarchical to network arrangements for providing IT services? What factors moderate how fast the transition takes place? What is the effect of endogenous or exogenous friction in facilitating or inhibiting the move?

In this research-in-progress paper we engage in a preliminary exploration of the challenges and issues raised when transitioning from a hierarchical mode of IT service provision towards a networked one. We explore this through a case study of a large public-sector entity that is in the midst of moving its IT services into a shared services arrangement. We propose a preliminary, explanatory model for managing IT services provision. This model provides a starting point for discussions as to what an explanatory model of managing IT service provision in this transitional journey between the two entirely different models of operation would look like.

For clarity, hierarchical model refers to provisioning IT services through an internal IT organization. Market provisioning refers to sourcing IT services in the market, typically through outsourcing arrangements. Networked IT service provisioning occurs when groups of organizations band together as partners to deliver IT service in a shared arrangement.

The paper will proceed as follows: in section two we explore previous research on IT governance, IT service provision, and IT shared services arrangements. We follow this with a discussion of the methodology in section three and a case study in section four. Section five discusses our findings and in section six we present our conclusions.

2. Previous Research

Researchers and practicing managers have been concerned about how best to organize, structure, control, and evaluate IT services in organizations since the early years of computerization (Boynton, Jacobs & Zmud 1992, Brown & Grant 2005, Brown & Magill

1994, Garrity 1963, Olson & Chervany 1980, von Simson 1995). However, the term IT governance appeared in the academic literature only in the early 1990s (Henderson & Venkatraman 1993, Loh & Venkatraman 1992). From the late 1990s more specific studies on IT governance started to get published (Brown 1997, Mähring 2002, Sambamurthy & Zmud 1999). At the same time the formation of the IT Governance Institute in 1998, precipitated a strong practitioner-focused interest in IT governance (de Haes & van Grembergen 2005).

While there still remains definitional diversity as to what is meant by IT governance (Brown & Grant 2005, de Haes & van Grembergen 2005, Webb, Pollard & Ridley 2006) there is consensus among researchers and most practitioners that IT governance is more than a structural phenomena. It embodies, in addition to structure, relational, processual, and temporal dimensions (Grant et al. 2007, de Haes & van Grembergen 2005). We follow Grant et al. (2007, p. 2) who define IT governance to be “a dynamic, performance driven, adaptive, relational process of aligning corporate and IT strategies, objectives, accountability structures, systems, and practices with the objective of delivering valuable, risk-reduced, and measurable returns on IT-related investments.” Theoretical ideas for governing IT are often difficult to enact in practice (de Haes & van Grembergen 2009).

Complementing the focus on IT governance is the renewed concern about how well organizations manage and deliver their IT services. IT service management is an organizing frame for thinking about how IT is used to support organizational endeavors (Palmer 2005). It is defined as “the management of all processes that co-operate to ensure the quality of live IT services, according to the levels of service agreed with the customer” (ITSMF International 2007, p. 31). In this construct the affordances of IT are conceptualized as services which the organization acquires based on demand. It suggests that organizations are less concerned about the ownership and source of IT artifacts and are now more focused on ensuring that the services afforded by IT assets can be appropriated when and in what form they are needed. IT service management, therefore, changes the mindset of both service provider and service consumer with regards to what services are developed and how these services are delivered to and consumed by the end customer.

With the IT service management concept taking hold, the idea of delivering bundles of IT services through IT-SSCs provided an attractive alternative to organizations owning the technologies, systems, and processes for producing their IT services. SSCs give organizations the opportunity to off-load complex service provisioning activities to specialized centers of excellence (Ulbrich 2006, Ulbrich 2009). These centers of excellence have the breadth, depth, and leverage to procure, develop, and provide services afforded through complex and ever-changing set of technologies, infrastructures, and competencies. It enables the consuming organization to access required services supported by contracts and service level agreements.

The ideas of IT governance, IT service management, and IT shared services coalesce around the theme that IT service delivered to organizations need to suit and support what the organization is trying to accomplish. IT governance ideas compel organizational executives and managers at all levels to ensure that investments in IT are properly selected prioritized and delivered in a risk-reduced, value-enhancing way.

IT service management ideas provide a framework for structuring IT service delivery modes. It allows managers to separate the service demand processes from the delivery modes and provides a broader set of options through which organizations can meet their IT service needs. By using IT-SSCs organizations can free themselves from the ownership of complex IT and focus their energies on delivering business-relevant services supported by advanced IT provided by another entity.

The challenge organizations face then is how to make this new arrangement work to their benefit. With the separation of services demands from the ownership of the means of delivering those services, how can organizations safeguard that the value-producing qualities of the service are maintained and enhanced when they move from a hierarchical to a network model of IT service provision?

3. Methodology

This on-going research investigates how an organization can safeguard that the value-producing qualities of its IT service provision are maintained and enhanced when moving from a hierarchical to a network model of service delivery. In our drive to explore this question we deploy an interpretive case-study strategy. It is the preferred research strategy to answer this type of question (Walsham 1995) and promises to generate interesting and novel insights into the particular phenomenon. It has been proven useful before for, for example, exploring and explaining the adoption of SSCs in public-sector organizations (Janssen, Joha & Zuurmond 2009, Ulbrich 2008) or translating and measuring performance of SSCs (Rodríguez, Muras & Calhoun 2002, Ulbrich, Bergström & Löfstrand Ianni 2008).

In the present research project we aim for in-depth data from several organizations. Currently, we are in the midst of exploring the transition from a hierarchical, system-focused IT service provision model towards a networked, service-oriented one. The first organization in which this transition is studied is Omega. We focus on one organization at this time to build up our initial understanding. This helps us to elicit early feedback from peers. This valuable feedback will be included in our future research, which also will include other entities.

Omega is a large public-sector entity in Canada. Its name has been altered to assure the organization's anonymity. Omega adopted the idea of setting up an IT-SSC in 2004. Our study, hence, describes the change process in retrospect. Studying a case in retrospect on the one hand has the disadvantage of not being close in time to salient events. On the other hand it usually has the advantage that respondents have had some time to reflect on what had taken place. This allows them to express thoughts and feelings about events and observations. Furthermore, it enables us to study the process in a more mature phase of using IT-SSCs, which would not have been possible otherwise.

To overcome shortcomings of a retrospective study, we collect data from several respondents to make sure that we can present a nuanced picture of the implementation of an IT-SSC at Omega. In this research-in-progress paper we report on the senior management perspective and present and analyze in-depth data from one perspective: Omega's CIO Ryan (the name has been altered to protect the individual's identity). Furthermore, we have collected documents that kept record of the transition at Omega. Such documents include formal audits and response from the management.

Our first contact with Ryan has been through a 90 minute-long presentation on the IT-SSC change process at Omega. The presentation slides and notes have provided the initial documentation on the project. This presentation has been followed up by two longer interviews. These interviews, 60 to 90 minutes long respectively, have been digitally recorded and transcribed. While having a single key informant is an acknowledged shortcoming, the point of this research-in-progress paper is to lay out ideas that will require further validation.

In our interviews we have followed Walsham's (1993) suggestion to base our interview guide on our literature review. Our interview guide covers five main areas: (1) Background on

interviewee and his organization; (2) the adoption of IT-SSCs at Omega, including initial goals; (3) the transition towards IT-SSCs and how Omega ensured high-quality service delivery; (4) measuring performance of IT services; and (5) how Omega ensured effective IT governance based on adopting IT-SSCs.

Collected data has been analyzed and interpreted in an iterative process. Each time we have met Ryan we developed a better understanding of what was reported to have happened at Omega. To further our understanding we intend to complement the collected data with several additional sources of information in the next stage of this ongoing research project. This would allow triangulation, which is limited in the current stage of our research.

Although, we understand the range of limitations in terms of triangulation or validation through several cases, we feel that the results so far can be used to propose a tentative model that explicates the transitional journey in managing IT service provision between two entirely different states of operation, namely a hierarchical and a network one. Our study, hence, served as input for a model which we aim at testing/validating in our future research through more input from different data sources from both within Omega and different public-sector organizations.

Therefore, when it comes to making sense of the specific findings, we concur with Walsham (1995) and believe that the insights from one particular case can be valuably applied in the future to other organizations or contexts.

4. IT-SSCs at Omega

Our account for IT-SSCs at Omega is divided into five subsections. First, we provide some background on the case organization. Second, we depict the initial steps taken in the change project. Then we continue with highlighting some of the challenges related to managing technological and organizational changes. This is followed by a description of the current state of IT-SSCs. Finally, we conclude with an outlook for future directions.

4.1 Background

Omega started its IT-SSCs initiative in April 2004. It was a response to a changing political environment as well as a changing organizational and technical landscape.

Since the mid-1990s when Omega was still a highly decentralized organization, different branches operated fairly independently. They were like islands in a corporate structure. They all had their own local management and they all made many independent decisions such as investing in specific IT infrastructure, systems, processes, and personnel. Of course all branches of the departments were responsible for maintaining and managing their own IT functions. This resulted in a tremendous duplication of IT activities when seen from a corporate perspective.

In line with budget cuts and the need to deliver the same or more services at lower cost in the future, Omega was one of many organizations that realized the need for change. This duplication of tasks and functions was prevalent in the IT field especially when these were organized in hierarchical silos. Omega, for example, used too many machines and too much space in serving the organization to fulfill its business goals. A solution, it seemed, would be to concentrate IT functions and gather both people and equipment in an IT-SSC.

The idea of doing so was not completely new. In Europe, for example, several public-sector organizations had started similar initiatives (Ulbrich 2003). In Canada the Federal Government was keen about adopting management ideas such as shared services. Under, “The Way Forward” project, harnessing technology to revolutionize government services delivery became a key objective (Public Works and Government Services Canada 2009). This aspect of the program envisaged an enterprise approach to IT—manifested in the form of IT shared services as well as other IT related process changes. Similar changes had already taken hold in other Canadian governments such as those in the provinces of Ontario and British Columbia. According to Ryan it seemed that the whole IT community was favoring the new orientation towards IT-SSCs.

As a consequence of the new orientation, political will and support was in place. As Ryan expressed it, “all stars were aligned” and they could start working on setting up IT-SSCs within Omega.

4.2 Initial steps

When the IT-SSCs project started at Omega the organization first needed a plan or roadmap to follow. In this plan Omega also defined initial goals for the IT-SSCs and how to get there over time.

Talking about the goals Ryan stated that cost reduction and service-quality improvement were very important goals. Also the reduction of the organizations overall carbon footprint was interesting but rather a byproduct than a goal per se.

For Ryan the most important goal for the IT function was to “get out of the low-value parts of IT and focus on what is critical for business operation.” He explained that, “what is critical is supporting the business in meeting its objectives.” Ryan indicated that this was a major shift in IT service provision and that the future was not about collection of as much IT gear within Omega but to ensure that IT was available to support the organization’s business when needed. For that the IT function should focus on critical business application rather than on IT infrastructure. Ryan said that Omega must “focus on things that are specific for [Omega].”

This shift in focus was mirrored in the way the project unfolded. First Omega started to question what its core business was. They inventoried everything they did and discussed which of these activities were core activities and which were non-core. Then activities were given priorities. It turned out that many of the functional IT activities were non-core activities with low priority. Knowing what has low-value impact is important because Omega is responsible for it, but responsibility, Ryan pointed out did not mean that Omega had necessarily to do it themselves.

The question arose what to do with all the non-core functions. Prevailing union agreements resulted in high job security for the employees. Working in a situation where the traditional mantra of not letting people go dominated, Omega needed to find a way that allowed for keeping incumbent personnel at the same time as less important non-core IT activities needed to be re-organized. Such a re-organization also required political assent. It was important to get The Treasury Board Secretariat of Canada onboard to guarantee approval of the intended change.

As a next step it was important to identify who was doing what and where all the equipment was located before any change could take place. Hence, the process of transferring people and IT equipment into one single organization, started with an identification process. For this

process Omega used an approach similar to the one that was used in the federal “The Way Forward” project.

4.3 Managing technological change

The first two years in the change process were primarily focused on technological change.

While taking stock on IT gear, Omega soon realized that they made some wrong assumptions about the scope of IT equipment owned by the organization. IT personnel at Omega initially estimated that there were about 300 to 400 servers used in the organization and that these servers needed to be identified. In the process of identifying all IT gear that was subject for moving into the new IT-SSCs it turned out that this number was twice as much as initially thought. Over 700 machines needed to be moved to the IT-SSCs.

The unexpected large amount of servers went beyond the scope of the new centers. Hence, physical space where to locate the servers became an issue. With not enough space in their internal IT-SSC, Omega consulted the Federal IT-SSC at the Department of Public Works and Government Services of Canada (PWGSC) to rent space in their facilities and, hence, placed part of its gear at PWGSC. The servers still were owned by Omega and Omega was responsible for their operation. In this arrangement, PWGSC did not manage any data. It was only responsible for the physical environment in which the servers operate; making backups, and handling recovery issues.

Further, Ryan saw this kind of facility hosting as a first step towards moving operational IT personnel to the Federal IT-SSC, using the center as an external service provider in the future. He said that, “If the day ever arrives that they [Federal IT-SSC] are in the position to take on full responsibility of all this gear and the people that we have, we are more than happy to give it to them.” The Omega CIO really wanted to move his focus away from owning and managing the technological components of the IT infrastructure to focus on the business affordances that an efficient and well-managed infrastructure can deliver.

4.4 Managing organizational change

The second two years of the change focused primarily on organizational change and especially on structural changes and managing the people involved at Omega.

Implementing IT-SSCs at Omega meant a major structural change for the organization. IT units that previously were decentralized were dissolved and gathered in IT-SSCs. This was not welcomed by all branches. The reasons were twofold. First, branches had previously increased their IT budgets at the expense of the core business. When the IT budget was about to move to IT-SSCs it was the higher budget and the branches had less money for their core business at their disposal.

Second, the branches feared that the new IT-SSCs would not provide as much customized service as they could get from their own IT functions before. The whole idea of setting up IT-SSCs was accompanied by a desire to standardize services and streamline the IT function. However, the branches were not used to that thought. Ryan explained that “a lot of it is not rule-based, it is personal-preference based,” which means that the executives in the different branches had their own priorities and ideas how things should work.

In the past, Ryan said, it was important to consider these special wishes because executives then gave him support in board meetings to get through his own agenda. This time, however, the departmental culture was changing because of senior managers’ involvement and

commitment. Instead of letting things grow organically from the bottom, which happened in the past, the new approach in the organization was to steer more firmly from the top. Hence, the IT-SSCs initiative was a classic top-down initiative where all branches had to follow directives.

Even with a top-down approach Ryan explained change such as the implementation of IT-SSCs was still about the people involved in the change and managing this change. Union agreements had to be respected. This made it difficult to just move people around. Further, PWGSC had no mechanism in place to transfer people from Omega to them. A solution to this problem was to move people into a matrix organizational structure. Employees responsible for operating and managing IT infrastructure at Omega reported to managers both at Omega and the Federal IT-SSC.

Managing the people also involved managing a shift in required competences. Education and expertise, Ryan explained, were the critical success factors for IT-SSCs. When IT services were provided in functional silos employees needed to possess more generalist skills. This made them flexible and responsive. With these more general skills they could be called upon to deal with a wide variety of issues. Given the more relaxed circumstances they could attempt to make fixes in a less pressurized and customized way. In contrast, operations in a large IT-SSC require more specialist expertise. Because of high levels of process and systems standardization it was no longer sufficient or possible for one person to cover a wide variety of service demands. In-depth expertise was now needed to deal with complex, time-sensitive issues.

Another issue that arose had to do with what happened when people from different branches of the organization were brought together into the new IT-SSC. With people from different branches with different experiences and routines put together in one organization, friction developed about how to carry out specified work and how to work together. Each and everyone felt that her or his way was the correct one. Further, wages could differ significantly and might, in some cases, not be related to the individuals' actual skills. This, according to Ryan, created discord amongst some employees.

4.5 Outcomes

Four years after the start outcomes relating to both technological and organizational change can be seen at Omega. They can also be seen in the wider context of the IT-SSCs idea and its initial goals.

With regard to technological changes Omega has concentrated its IT gear in few IT-SSCs instead of having it decentralized. In the consolidation process Omega identified 741 servers in its distributed IT infrastructure. Through consolidating the servers in the IT-SSCs the number was effectively reduced to 563 by late-2008. The consolidation of servers into fewer data centers allowed Omega to better make use of virtualization and, hence, to use the existing computing power more effectively.

At the same time as fewer servers were needed and the remaining servers were relocated to the data centers, the amount of necessary data center space decreased. From 13,000 square feet in 2005 initially, the space needed to host the servers shrank to 7,100 square feet. This represented a 45 percent reduction of the physical space. However, more space than initially estimated was needed, which resulted in the facility management solution arranged by the Federal IT-SSC.

With regard to organizational change Omega has adopted a new management style. Top-down management and a way towards standardized, rule-based service provision has been adopted. On the one hand it means less flexibility for taking into consideration individual branches' needs. On the other hand it increases the possibility for Omega to make available expert competence to the whole organization. The need for a higher level of expertise is the result of changing skill requirements. Some jobs and their requirements were redesigned.

With regard to adopting the idea of IT-SSCs at Omega, Omega has engaged in a dual-reporting relationship with the service centers. The personnel reports both to PWGSC and Omega in a matrix organization. Ryan described this situation as a temporary experiment for accomplishing "operational alignment." For him, "it is a precursor to transferring all the people over [to the shared service centers], but [the experiment] has been in existence for the last two years and we can't seem to get out of it."

At the same time as the idea of IT-SSCs started to take hold at Omega, the organization also shifted its focus on how to manage IT as a business. While moving the daily operations and management of IT to a service provider relieves the organization of the pressures of managing tactical and operational IT systems and people, using a service provider creates a gulf between service demand and service provision that can only be bridged by active and adroit vendor and service level management.

At present, only a few variables are measured to follow up on IT-SSCs performance. They are divided into internal and external measurements. Internal measurement include, for example, responsiveness, how long time it takes to respond to a call, server uptime, network availability, among other measures. They are all about how to manage the operations. External measurements are concerned with what the clients see. For example, how long did it take me to get service restored? They do not care about a server going down. What they care about is that a workstation stopped working or that the network is down and they can't get their work done. What is measured externally is end-to-end availability.

4.6 Future direction

Officially, Ryan considered the project completed. After four years the IT-SSCs were in place and operational. However, the change activities had not come to a stop and Omega continues to enhance the current version of its adoption of the idea.

The reasons to continue are manifold. First, one can expect that the total IT budget at Omega will decrease in the future and that the IT-SSCs need to become more efficient. At the moment Ryan estimated that the centers run at 60% efficiency. With this he meant that 40% of the daily operation can still be improved.

Second, Omega still has not moved its personnel completely to the IT-SSCs, especially those run outside Omega. For Ryan the plan is "to unload all staff out of here [the internal IT-SSC at Omega] and move it over there [to the external IT-SSCs at PWGSC]." As a consequence, the IT-SSC at Omega would become a pure buyer of IT services.

Third, in conjunction with moving towards an IT service buying unit, vendor management becomes more important. Ryan explained that once the IT-SSCs are located outside his realm he cannot control individuals anymore. It means his management focus is shifting from the operational to the strategic. Who in this network is providing IT services is secondary. It can be a service provider within the corporate structure such as PWGSC, but it could as well be a provider outside the corporation.

Fourth, Ryan saw the need to be flexible about the future direction. He said that, “we position the organization to go wherever the wind blows.”

In the meanwhile, Omega intended to improve the IT-SSCs efficiencies to ensure that costs are reduced as soon as possible. This Ryan envisioned would lead to lower costs once the centers are outsourced to a third party provider. At this point the operating costs become very transparent to both the service consumer and the service provider.

5. Discussion

Transitioning from hierarchical IT service governance modes to networked arrangements as manifested in IT-SSCs is not a seamless process as envisaged in organizational strategies and plans. Such transition is characterized by improvisations (Orlikowski 1996), breakdowns, adaptations (Ciborra & Hanseth 1998), and translations (Ulbrich 2008). Along the transitional journey, organizations often develop hybrid structures and processes linked to legacy environments, processes, and systems. These hybrids represent path-dependent translations to cope with the inertia precipitated by social, cultural, and structural legacies.

In the case of Omega we have seen, for example, that people management made the shift towards IT-SSCs problematic. People cannot be moved fast and seamlessly, particularly in a public-sector context. The transition can be hampered by such things as union agreements or readiness of the service providing organization to take over. Union agreements give many public-sector employees “lifetime” employment. It is difficult then to move them out without restructuring the basis of their employment. If there is a change it becomes the responsibility of the agency to find new work for them.

Readiness of the Federal IT-SSC to assume the responsibility for systems and personnel from Omega was not a given. The Federal Government had an idea of harnessing technologies to revolutionize government services. However, IT-SSC had not progressed in alignment with the changes at Omega. A dichotomy between how tasks should be performed and where people were located developed. The change at the two organizations did not happen simultaneously, leading to a mismatch of expectation and ability to deliver.

The result of such legacies is that Omega had to translate the shared services idea and fit it to its preconditions. Ulbrich (2008) finds that such improvisations are common amongst public-sector organizations. In fact, he has shown that none of the agencies he studied adopted the original idea. All had to concede to an alternative solution in the form of hybrid arrangements. At Omega the result is also a hybrid in the current phase.

However, appetite comes while eating. Consequently Omega is striving after a more textbook-like approach to IT-SSCs to accomplish more of its initial goals. These include not having to care about IT details, cutting costs, getting access to expert competence, increasing service quality, reducing the environmental impacts, among others.

Apart from this we can already see, in the case of Omega, that the current IT-SSCs are an intermediate step towards uncoupling its IT support business from the core organization.

The more an organization uncouples its IT support business from the core organization, the more the organization takes a step from hierarchical models of IT service provision towards a networked one. In Figure 1, we conceptualize this move from a hierarchical, system-centric model of governing and managing IT to a more networked, service-centered model.

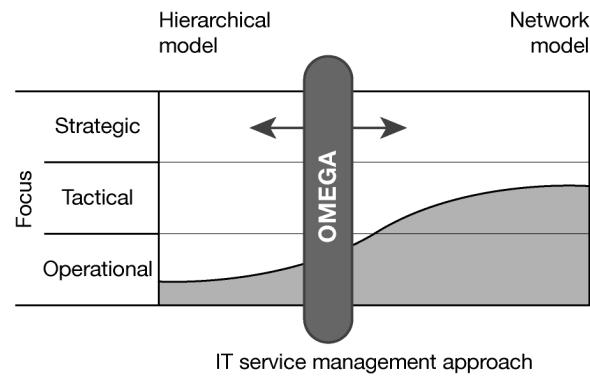


Figure 1: IT Service Transition Model.

While this move is not entirely a new phenomenon, particularly in private-sector business organizations, the focus of this conceptualization is on the intricacies of the journey and how organizations can navigate this uncertain transitional path. As Figure 1 suggests, in the hierarchical model—which is located at the extreme left—organizations focus on delivering IT functions from the strategic to the minute operational aspect. They do so by accumulating both physical IT assets and personnel in traditional structures of departments or functions (cf. Gordon 2001). On the extreme left, all IT decisions from investment priorities to operational problem-solving, respectively, must be made by executives, managers, and operational personnel within the organization. It means that virtually all IT service provision is in-sourced and operated in departmental or functional silos. Usually, a significant investment of time and other resources is needed to ensure that IT services are provided in a timely and effective manner.

In the network model—which is located at the extreme right—operational and almost all tactical processes and systems are in the purview of the IT-SSC or other relevant provider. IT decisions within the organization focus more on strategic issues. The IT-SSC, hence, can focus more on delivering operational and tactical IT services that in turn support the strategic business goals of the organization (cf. Pearlson & Saunders 2009; Ragowsky, Licker & Gefen 2008). To the extent that tactical decisions are made they tend to concentrate on vendor and service-level management concerns.

In terms of performance management, the more to the left one goes on the continuum between the hierarchical and network model, the more focus there is on operational measures. The more to the right, the more concentration there is on strategic measures. When focusing on the left side organizations need to manage internal operation excellence. It becomes key to effective IT service delivery. When moving more to the right, operational excellence of providing IT services becomes the responsibility of the IT-SSC or vendor. The organization, hence, focuses more on managing the vendor relationship and instead of managing issues on an operational level it can concentrate its managerial efforts in ensuring business excellence through using IT services that are provided by someone else.

In reality, organizations in transition do not operate at either extreme. Such was the situation at Omega. Before Omega started its journey IT service provision was based on the hierarchical model. Everything was provided in-house and too many resources were spent on delivering IT services. When Omega realized this waste of resources it decided to start the transition towards a network model. Omega, however, had not reached the far left end of the model yet and is still sliding from one extreme to the other.

How fast an organization progresses on the continuum indicates how fast the transition takes place. The speed depends on the friction an organization meets on its particular journey. Friction is conditioned by an organization's existing circumstances. These include, among other things, the organization's change culture, the existing forms of agency in the organization, the prevailing structures, operating context and technology. Some general aspects that can help to reduce friction and move the organization forward on the continuum have been presented by Ulbrich (2006), for example. Top-management support and clear directions are mentioned; characteristics that the CIO of Omega also considered important for moving toward an IT-SSC arrangement.

The speed at which an organization progresses along the continuum also depends on its initial goals, which means how far it really wants to go on the continuum. If it intends to translate the shared services idea differently, it might be content to exist at a state somewhere in between the two extremes on the IT service management continuum.

In the case of Omega, we see that it is currently in a hybrid state. This state can be attributed both to the friction and resultant inertia that materialized in the transition process. While the direction of movement is towards an optimized IT-SSC arrangement the progress forward is stymied by institutional constraints accompanying any process of major organizational change. Omega, for example began the journey by transforming IT provisioning first. However, the effort to transform the people side of things is much more challenging and deliberate. Institutional and environmental pressures have retarded a complete transformation.

As Figure 1 suggests, the direction of movement between the two extremes is not necessarily unidirectional. It is entirely conceivable, given institutional and external environment exigencies, that there could be a movement back to the left, towards the previous hierarchical setup. For example, Omega initially began to transfer network engineering services to the IT-SSO. However, it found that for both cost and quality reasons it was best to migrate these services back, providing them again internally. Figure 1 is illustrative of a "sliding rule" effect that embodies sentiments voiced by Omega's CIO Ryan when he suggested that Omega is positioning itself to go "wherever the wind blows." The achievement of an optimized IT-SSC arrangement, therefore, is not a foregone conclusion as political and other factors can reverse the rationale for such a move.

IT governance in this situation is a nuanced orchestration of structures, processes, and relationships. Executives need to focus efforts on setting strategic direction while understanding the achievement of the organizations objective for harnessing IT is a constant process of cultivation, encompassing a myriad of improvisations and adaptations (Ciborra & Hanseth 1998, Kern 1997). The translation of the IT-SSC ideal into reality depends to a large extent on an organization's success in transforming both the mindset and competence of managers and IT personnel to embrace the change envisaged.

Our proposed model is meant to facilitate future data analysis in our research project. The model can be used as a starting point for developing a coding scheme for collected data. This can help us in better understanding the various forces that make the "rule" slide from the left to the right and vice versa. It also helps us in discussing the types of friction that causes the "rule" to tilt, i.e. hampering the transition from the hierarchical towards a network IT-service-provision model.

We envisage that future use of the model in our research will further help us in better understanding how foci at the managerial level change over time. We can use it, for example, to analyze the behavior of individuals in the transitional process. It can be used to discuss the

individuals' abilities to adapt to the change and whether they are playing a facilitating role in the change process, i.e. whether they are advocating the change or not.

In sum, the proposed model can be used to both describe and illustrate the journey towards networked service provision on several levels. On one level the change process can be described, on another level we can, for example, illustrate the shift in foci. It also can be used to analyze why the "rule" is sliding, i.e. which forces are making the "rule" move forwards and backwards.

6. Conclusion

Lately the IT department of the studied organization Omega has shifted its focus from a hierarchical model of IT service provision towards a network one. To better support organizations like Omega in this change, theoretical models on IT governance need to incorporate this type of shift and provide better guidance on practical IT service management.

In this research-in-progress paper we have illustrated how, in transitioning from a hierarchical to a network model of IT service provision, an organization can strive to safeguard the value-producing qualities throughout such a transition. We have shown that an organization moves from providing IT services through internal IT hierarchies towards networked structures exemplified in IT shared services, the focus of IT management moves from a strong focus on operational concerns to more strategic business-focused issues. While moving towards a network model of IT service provision, operational excellence becomes the responsibility of the IT service provider. Consequently, IT governance needs to focus more on managing the relationship between the IT department and its different service providers.

Also we have shown that the shift from a hierarchical model of IT service provision towards a network one progresses faster for technological and task-related changes than organizational and people-related changes. Managing people on the journey towards a service-oriented networked arrangement requires more time because of several frictional flows.

Frictional flows are influenced by, endogenous constraints such as an organization's change history, top management engagement, and the readiness of employees to embrace change. It is also exogenously influenced by circumstances such as prevailing union agreements, or the service provider's readiness to deliver IT services.

To better explain how foci shift along the transition from a hierarchical model of IT service provision towards a network one, we proposed a tentative IT service transition model. The model elucidates how the two extreme service delivery modes are related to performance measures that are strategically, tactically, and operationally connected to providing IT services. The model shows the different foci ranging from providing operational excellence (do it yourself and do it good) to supporting business excellence (let someone else do it better.)

The proposed model constitutes an intellectual starting point for our future research. In our future research we intend to show how the model can contribute to the research body on IT governance and how it enhances our limited understanding of what happens in the organization when shifting between different modes of IT service provision. This understanding is necessary to highlight the need for a much more cultivated and nuanced approach to governing IT throughout its transition from one state to the next.

The present research-in-progress paper has to some extent already improved our understanding of how organizations can safeguard that the value-producing qualities of IT

service delivery are maintained and enhanced when moved from a hierarchical to a network model of IT service provision. There are, however, some limitations that require some attention in future research. The proposed model for understanding the transition of IT service provision can be enhanced, for example, by adding instances of typical measures to even better illustrate how the performance-measurement focus in an organization shifts along with the transition towards a network model. Also, the model needs further validation and might be expanded by using input from additional empirical data from both within Omega and other public-sector organizations. This could confirm our tentative model and shed even more light into different aspects of friction which impacts the speed at which a transition between different IT service provision models takes place in an organization.

References

- Boynton, A.C., G.C. Jacobs, and R.W. Zmud, "Whose responsibility is IT management?", *Sloan Management Review*, 33(4), 1992, pp. 32–39.
- Brown, A.E. and G.G. Grant, "Framing the frameworks: A review of IT governance research", *Communications of the Association for Information Systems*, 15, 2005, pp. 696–712.
- Brown, C.V., "Examining the emergence of hybrid IS governance solutions: Evidence from a single case site", *Information Systems Research*, 8(1), 1997, pp. 69–95.
- Brown, C.V. and S.L. Magill, "Alignment of the IS functions with the enterprise: Toward a model of antecedents", *MIS Quarterly*, 18(4), 1994, pp. 371–404.
- Ciborra, C. and O. Hanseth, "From tool to Gestell: Agendas for managing the information infrastructure", *Information Technology and People*, 11(4), 1998, pp. 305–327.
- Cross, J, M.J. Earl, and J.L. Sampler, "Transformation of the IT function at British Petroleum", *MIS Quarterly*, 21(4), 1997, pp. 401–423.
- Cullen, S., P. Seddon, and L. Willcocks, "Managing outsourcing: The lifecycle imperative", *MIS Quarterly Executive*, 4(1), 2005, pp. 229–246.
- Garrity, J., "Top management and computer profits", *Harvard Business Review*, 41(4), 1963, pp. 6–13.
- Gordon, L.A., "Cybercentrism: The new, virtual management", *Management Decision*, 39(8), 2001, pp. 676–685.
- Grant G.G., A.E. Brown, A. Uruthirapathy, and S. McKnight. "An extended model of IT governance: A conceptual proposal", *Proceedings of the 13th Americas Conference on Information Systems*, Keystone, Colorado, USA, August 9–12, 2007.
- Grant G.G., S. McKnight, A. Uruthirapathy, and A.E. Brown, "Designing governance for shared services organizations in the public service", *Government Information Quarterly*, 24(3), 2007, pp. 522–538.
- de Haes, S. and W. van Grembergen, "IT governance structures, processes and relational mechanisms: Achieving IT/business alignment in a major Belgian financial group", *Proceedings of the 38th Annual Hawaii International Conference on System Sciences*, 2005.
- de Haes, S. and W. van Grembergen, "An exploratory study into IT governance implementations and its impact on business/IT alignment", *Information Systems Management*, 26, 2009, pp. 123–137.
- Henderson, J.C and N. Venkatraman, "Strategic alignment: Leveraging information technology for transforming organizations", *IBM Systems Journal*, 32(1), 1993, pp. 472–485.
- Hirschheim, R. and Lacity, M. "The myths and realities of information technology insourcing", *Communications of the ACM*, 43(2), 2000, pp. 99–107.
- ITSMF International. *IT Service Management: An Introduction*, Van Haren Publishing, 2007.
- Janssen, M., A. Joha, and A. Zuurmond, "From implementation to adoption: Challenges to successful e-government diffusion", *Government Information Quarterly*, 26(1), 2009, pp. 15–24.
- Kern, T., "The Gestalt of an information technology outsourcing relationship: An exploratory analysis", *Proceedings of the 18th International Conference on Information Systems*, Atlanta, 1997, pp. 37–58.
- Loh, L. and N. Venkatraman, "Diffusion of information technology outsourcing: Influence sources and the Kodak effect", *Information Systems Research*, (3)4, 1992, pp. 334–359.

- Mähring, M., *IT Project Governance*, The Economic Research Institute, Stockholm, 2002.
- Olson, M.H., and N.L. Chervany, "The relationship between organizational characteristics and the structure of the information services function", *MIS Quarterly*, 4(2), 1980, pp. 57–69.
- Orlikowski, W.J., "Improvising organizational transformation over time: A situated change perspective", *Information Systems Research*, 7(1), 1996, pp. 63–92.
- Palmer, R., *IT Service Management Foundations: ITIL Study Guide*, Gulf Stream Press, 2005.
- Pearlson, K.E. and C.S. Saunders, *Managing and Using Information Systems*, Wiley, 2009.
- Public Works and Government Services Canada, "The Way Forward", <http://www.tpsgc-pwgsc.gc.ca/bulletin/fa-db/2006/2006-01/2006-01-001-eng.html>, accessed on June 8, 2009.
- Ragowsky, A., P. S. Licker, and D. Gefen, "Give me information, not technology", *Communications of the ACM*, 51(6) June 2008, pp. 23–25.
- Rodriguez, M.B., A.D. Muras, and D.D. Calhoun, "CITGO Petroleum meeting the challenge with ABM", *Journal of Corporate Accounting and Finance*, 13(3), 2002, pp. 27–44.
- Sambamurthy, V. and R.W. Zmud, "Arrangements for information technology governance: A theory of multiple contingencies", *MIS Quarterly*, 23(2), 1999, pp. 261–291.
- Schulz, V., A. Hochstein, F. Übernickel, and W. Brenner, "Definition and Classification of IT-Shared-Service-Center", *Proceedings of the 15th Americas Conference on Information Systems*, San Francisco, August 6–9, 2009.
- von Simson, E.M., "The recentralization of IT", *Comptetworld*, 29(51), 1995, pp. 1–5.
- Ulbrich, F., "How Swedish government agencies translate the shared services idea", in: Lundeberg, M., P. Mårtensson, and M. Mähring (Eds.), *IT and Business Performance*, Studentlitteratur, Lund, 2006, pp. 113–134.
- Ulbrich, F., "Implementing centers of excellence: A case study", *Proceedings of the 15th Americas Conference on Information Systems*, San Francisco, August 6–9, 2009.
- Ulbrich, F., "Improving shared service implementation: Adopting lessons from the BPR movement", *Business Process Management Journal*, 12(2), 2006, pp. 191–205.
- Ulbrich, F., "Introducing a research project on shared services in governmental agencies", *Proceedings of the 17th Nordic Academy of Management Conference*, Reykjavik, Iceland, 2003.
- Ulbrich, F., *The Adoption of IT-Enabled Management Ideas: Insights from Shared Services in Government Agencies*, The Economic Research Institute, Stockholm, 2008.
- Ulbrich, F., R. Bergström, and A. Löfstrand Ianni, "Transforming general performance objectives into specific measurements for shared service centers", in: Srinivasan, B.P. (Ed.), *Shared Services Management: A Global Perspective*, The Icfai University Press, Hyderabad, 2008, pp. 37–57.
- Walsham, G., *Interpreting Information Systems in Organizations*, Wiley, Chichester, 1993.
- Walsham, G., "Interpretive case studies in IS research: Nature and method", *European Journal of Information Systems*, 4(2), 1995, pp. 74–81.
- Webb, P., C. Pollard, and G. Ridley, "Attempting to define IT governance: Wisdom or folly?", *Proceedings of the 39th Hawaii International Conference on Systems Sciences*, 2006.
- Willcocks, L., Hindle, J., Feeny, D., and Lacity, M. "IT and business process outsourcing: The knowledge potential", *Information Systems Management*, Summer, 2004, pp. 7–15.